



## NUCLEAR REGULATORY COMMISSION

### 10 CFR Part 110

[NRC-2021-0026]

RIN 3150-AK60

### Revisions to Reprocessing Plant Components for Export

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Final rule.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is amending its export regulations pertaining to the illustrative list of reprocessing plant components under the NRC's export licensing authority. This final rule is necessary to conform the export controls of the United States to the international export control guidelines of the Nuclear Suppliers Group, of which the United States is a member. These changes will align the NRC's requirements with the current version of the International Atomic Energy Agency's (IAEA) document, "Guidelines for Nuclear Transfers" (INFCIRC/254/Part 1/Revision 14).

**DATES:** This final rule is effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2021-0026** when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2018-0294**. Address questions about NRC dockets to Dawn Forder; telephone: 301-415-3407; email: [Dawn.Forder@nrc.gov](mailto:Dawn.Forder@nrc.gov).

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents Collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

- **Attention:** The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via email at [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov) or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Lauren Mayros, Office of International Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-287-9088; email: [Lauren.Mayros@nrc.gov](mailto:Lauren.Mayros@nrc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Discussion**

The purpose of this final rule is to revise the NRC's export regulations in part 110 of title 10 of the *Code of Federal Regulations* (10 CFR), "Export and Import of Nuclear Equipment and Material," to conform the export controls of the United States to the international export control guidelines of the Nuclear Suppliers Group (NSG), of which the United States is a member. The NSG is a group of like-minded countries that seek to contribute to the nonproliferation of nuclear weapons through the implementation of guidelines for nuclear exports and nuclear-related exports. As a participating government in the NSG, the United States has committed to controlling export items on

the NSG control lists. Participating governments are charged with implementing the changes adopted to the list as soon as possible after approval. The NSG Guidelines can be found at: [www.nuclearsuppliersgroup.org](http://www.nuclearsuppliersgroup.org).

This final rule conforms the NRC's export regulations in 10 CFR part 110 with recent changes to the NSG Guidelines for Nuclear Transfers. These changes are necessary in order to align appendix I to 10 CFR part 110, "Illustrative List of Reprocessing Plant Components Under NRC Export Licensing Authority," with the changes made to Annex B of the NSG Guidelines for Nuclear Transfers, entitled "Plants for the reprocessing of irradiated fuel elements, and equipment especially designed or prepared therefore." The NRC has determined that these changes are consistent with current U.S. policy, and will pose no unreasonable risk to the public health and safety or to the common defense and security of the United States.

## **II. Summary of Changes**

### *10 CFR Part 110*

The recent NSG changes were made to Section 3 of Annex B of the Part 1 Guidelines, entitled "Plants for the reprocessing of irradiated fuel elements, and equipment especially designed or prepared therefore," which covers reprocessing plants and equipment and, specifically, different types of equipment used to open the fuel cladding surrounding uranium fuel. The first set of changes were made to paragraph 3.1 of Section 3, entitled "Irradiated fuel element chopping machines." The entry was amended with new text that is more neutral in clarifying precisely how the fuel element is de-cladded to expose the irradiated nuclear fuel for further processing. The old text focused on chopping machines (guillotine-like blades that cut the fuel rod into shorter pieces without removing the actual cladding). The new text makes it clear that other methods can be used to de-clad fuel. The second set of changes were made to paragraph 3.2 of Section 3, entitled "Dissolvers." This amendment broadens the description of the referenced dissolvers. The old text was focused on ensuring criticality safety exclusively through controlling the geometry of the tanks. The new language

clarifies that the tanks are not necessarily made safe by geometry alone. Other physical means and process controls can be used to ensure safety.

The corresponding changes to 10 CFR part 110 will be made to appendix I, entitled "Illustrative List of Reprocessing Plant Components Under NRC Export Licensing Authority." Paragraph 3.1 changes to the NSG Part 1 Guidelines will be made to paragraph (1) of appendix I, and Paragraph 3.2 changes to the NSG Part 1 Guidelines will be made to paragraph (2) of appendix I. Since the appendix I entries of 10 CFR part 110 exactly match the Section 3 entries of the NSG Part 1 Guidelines, the changes to 10 CFR part 110 will be made exactly as they were implemented in the NSG Part 1 Guidelines.

### **III. Rulemaking Procedure**

Because this rule involves a foreign affairs function of the U.S., the notice and comment provisions of the Administrative Procedures Act do not apply (5 U.S.C. 553(a)(1)), and good cause exists to make this rule immediately effective upon publication. The effective date for those entities who receive actual notice of this rule is the date of receipt of this rule.

#### **IV. Environmental Impact: Categorical Exclusion**

The NRC has determined that this final rule is the type of action described in 10 CFR 51.22(c)(1), which categorically excludes from environmental review any amendments to 10 CFR part 110. Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this rule.

#### **V. Paperwork Reduction Act**

This final rule does not contain new or amended information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). Existing requirements were approved by the Office of Management and Budget under approval number 3150-0036.

#### **Public Protection Notification**

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

#### **VI. Regulatory Analysis**

This final rule revises appendix I to 10 CFR part 110 to conform to the NRC's changes to Annex B. There is no alternative to amending the regulations for the export of nuclear equipment and material. Therefore, the NRC did not develop a regulatory analysis for this final rule. This final rule is expected to have no changes in the information collection burden or cost to the public.

#### **VII. Plain Writing**

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written

this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, “Plain Language in Government Writing,” published June 10, 1998 (63 FR 31885).

#### **VIII. Backfitting and Issue Finality**

The NRC has determined that a backfit analysis is not required for this rule, because these amendments do not include any provisions that would impose backfits as defined in 10 CFR chapter I.

#### **IX. Congressional Review Act**

This final rule is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has not found it to be a “major rule” as defined by that act.

#### **List of Subjects in 10 CFR Part 110**

Administrative practice and procedure, Classified information, Criminal penalties, Exports, Incorporation by reference, Imports, Intergovernmental relations, Nuclear energy, Nuclear materials, Nuclear power plants and reactors, Penalties, Reporting and recordkeeping requirements, Scientific equipment.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR part 110:

#### **PART 110 – EXPORT AND IMPORT OF NUCLEAR EQUIPMENT AND MATERIAL**

1. The authority citation for part 110 continues to read in part as follows:

**Authority:** Atomic Energy Act of 1954, secs. 11, 51, 53, 54, 57, 62, 63, 64, 65, 81, 82, 103, 104, 109, 111, 121, 122, 123, 124, 126, 127, 128, 129, 133, 134, 161, 170h,

181, 182, 183, 184, 186, 187, 189, 223, 234 (42 U.S.C. 2014, 2071, 2073, 2074, 2077, 2092, 2093, 2094, 2095, 2111, 2112, 2133, 2134, 2139, 2141, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2160c, 2160d, 2201, 2210h, 2231, 2232, 2233, 2234, 2236, 2237, 2239, 2273, 2282); Energy Reorganization Act of 1974, sec. 201 (42 U.S.C. 5841); Administrative Procedure Act (5 U.S.C. 552, 553); 42 U.S.C. 2139a, 2155a; 44 U.S.C. 3504 note.

Section 110.1(b) also issued under 22 U.S.C. 2403; 22 U.S.C. 2778a; 50 App. U.S.C. 2401 *et seq.*

\* \* \* \* \*

2. In appendix I to part 110, revise paragraphs (1) and (2) to read as follows:

**APPENDIX I TO PART 110—ILLUSTRATIVE LIST OF REPROCESSING PLANT COMPONENTS UNDER NRC EXPORT LICENSING AUTHORITY**

\* \* \* \* \*

(1) Irradiated fuel element decladding equipment and chopping machines.

Remotely operated equipment especially designed or prepared for use in a reprocessing plant and intended to expose or prepare the irradiated nuclear fuel assemblies, bundles, or rods for processing. This equipment cuts, chops, shears, or otherwise breaches the cladding of the fuel to expose the irradiated nuclear material for processing or prepares the fuel for processing. Especially designed cutting shears are most commonly employed, although advanced equipment, such as lasers, peeling machines, or other techniques, may be used. Decladding involves removing the cladding of the irradiated nuclear fuel prior to its dissolution.

(2) Dissolvers.

Dissolver vessels or dissolvers employing mechanical devices especially designed or prepared for use in a reprocessing plant, intended for dissolution of irradiated nuclear fuel and which are capable of withstanding hot, highly corrosive liquid, and which can be remotely loaded, operated and maintained.

Dissolvers normally receive the solid, irradiated nuclear fuel. Nuclear fuels with cladding made of material including zirconium, stainless steel, or alloys of such materials must be decladded and/or sheared or chopped prior to being charged to the dissolver to allow the acid to reach the fuel matrix. The irradiated nuclear fuel is typically dissolved

in strong mineral acids, such as nitric acid, and any undissolved cladding removed.

While certain design features, such as small diameter, annular, or slab tanks may be used to ensure criticality safety, they are not a necessity. Administrative controls, such as small batch size or low fissile material content, may be used instead. Dissolver vessels and dissolvers employing mechanical devices are normally fabricated of material such as low carbon stainless steel, titanium or zirconium, or other high-quality materials. Dissolvers may include systems for the removal of cladding or cladding waste and systems for the control and treatment of radioactive off-gases. These dissolvers may have features for remote placement since they are normally loaded, operated, and maintained behind thick shielding.

\* \* \* \* \*

Dated: July 21, 2021.

For the Nuclear Regulatory Commission.

Margaret M. Doane,  
Executive Director for Operations.

[FR Doc. 2021-15922 Filed: 7/26/2021 8:45 am; Publication Date: 7/27/2021]